

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A programmable logic integrated circuit used in a communication system, comprising:

at least a first and a second physical layer module each can interact with a physical medium under a predetermined specification;

a media independent interface that can receive a first set of data from either one of the first and the second physical layer modules and generate a second set of data; and

a media access control module that processes the second set of data ; and wherein the media access control module comprises a first portion and a second portion, and wherein the first portion remains unchanged after configuration and the second portion is partial reconfigurable in response to a selection of either the first or the second physical layer module.

2. (Original) The integrated circuit of claim 1 wherein the media independent interface and the media access control module are implemented using a programmable logic fabric and the first and the second physical layer modules are fixed logic components embedded in the programmable logic fabric.

3. (Original) The integrated circuit of claim 2 further comprising an interconnect logic layer separating the fixed logic components from the programmable logic fabric.

4. (Original) The integrated circuit of claim 3 wherein the interconnect logic layer comprises interconnecting tiles.

Claim 5. (Cancelled)

6. (Original) The integrated circuit of claim 1 wherein the predetermined specification is home phoneline networking specification.

7. (Original) The integrated circuit of claim 1 wherein the predetermined specification is Ethernet specification.

Claims 8-11 (Cancelled)

12. (Currently Amended) The integrated circuit of claim ~~[[8]]~~ 14 wherein the specification is HiperLAN2 wireless local area network specification.

13. (Currently Amended) The integrated circuit of claim ~~[[8]]~~ 14 wherein the specification is IEEE 802.11a wireless local area network specification.

14. (NEW) An integrated circuit comprising:
a plurality of configurable logic blocks connected together via a programmable interconnect structure;
at least a first and a second physical layer module each can interact with a physical medium under a specification;
a media independent interface that can receive a first set of data from either one of the first and the second physical layer modules and generate a second set of data; and
a media access control module that processes the second set of data ; and
wherein the media access control module comprises a first portion and a second portion, and wherein the first portion remains unchanged after configuration and the second portion is partial reconfigurable in response to a selection of either the first or the second physical layer module.